

**Proposal to Pilot Test a  
Home Performance with ENERGY STAR  
Contractor Partnership**  
July 20, 2009

**I. Introduction**

Home Performance with ENERGY STAR (HPwES) is a whole-house energy efficiency home improvement program promoted by the Environmental Protection Agency (EPA) and the Department of Energy (DOE) through partnership with over 27 local program sponsors across the United States (see Appendix A for a map showing where these programs are located). While specific local program details (such as incentive and contractor participation requirements) may vary, a common theme across all programs is that participating contractors agree to assess each home's energy performance using building science principles, and recommend the most cost-effective improvements to improve the home's energy performance as well as maintaining or improving the comfort, health and safety of its occupants and the home's long-term durability and value. More information about the program is available at [www.energystar.gov/homeperformance](http://www.energystar.gov/homeperformance).

**II. Expanding Home Performance Opportunities**

Currently, all HPwES programs rely on local sponsorship by utilities, state energy offices and other organizations that develop a network of participating contractors. Sponsor activities typically include contractor recruitment, training, mentoring and certification, marketing, third-party quality assurance and reporting, as well as offering incentives to participating homeowners and contractors who improve energy performance of homes. While there are various levels of effort depending on the geographical scope of the sponsor and the level of quality assurance required, EPA and DOE estimate that sponsors may need to invest \$15 million over a five year period to establish an effective program. Sponsors have launched HPwES programs in several markets throughout the U.S., however it is not available everywhere.

Because programs have not been established in all markets, contractors are limited to participating only where a program exists and expansion of the program is limited by sponsors' resources to establish programs in new markets.

To address this problem and help reduce the cost of program implementation, the DOE and EPA plan to pilot a new approach that proposes a direct HPwES partnership with home performance contractors.

Under the proposed pilot, EPA and DOE will test the logistical and financial feasibility of partnering with home performance contractors. The purpose is to define a set of national standards and protocols for contractors to become an

HPwES partner, and create a sustainable quality assurance infrastructure, which will reduce the administrative cost for utilities, states and municipal governments to sponsor programs. A sustainable quality assurance infrastructure will offer risk protection value to program administrators and constructive feedback to contractors at a cost both will accept. Accomplishing these goals will allow HPwES to expand to meet market demand instead of relying heavily on public funding.

This Contractor Partnership Pilot will also test the feasibility of transferring some of the roles of a Program Sponsor to other organizations. For example, the pilot will test the following roles and responsibilities:

#### The Role of DOE and EPA

- Pilot development and implementation
- Recruiting contractors, quality assurance providers and collaborating organizations
- Guiding all participants in the role they will play in the pilot
- Providing funding to stimulate some activities
- Consumer awareness campaign
- Pilot evaluation
- Issue certificates to homeowners (see Appendix B) that highlight the completed installations and improved energy performance

#### The Role of the Quality Assurance Provider

- Verification of contractor eligibility
- Verification of contractor quality management systems and practices
- Quality assurance oversight, including field inspections

#### The Role of the Training Provider

- Deliver contractor training
- Deliver contractor mentoring

#### The Role of the State and Local Governments

- Participate in consumer awareness campaign

#### The Role of the Participating Contractor Partners

- Offer customers a package of improvements that reduces energy use by at least 20%
- Perform whole-house energy efficiency improvements
- Marketing HPwES
- Report project information to EPA and DOE

#### The Role of Product Manufacturers and Retailers

- Contractor recruiting
- Contractor training
- Contractor mentoring
- Marketing HPwES

#### The Role of Utilities

- Consumer awareness campaign
- Financial incentives [optimal]
- Contractor training [optimal]

#### The Role of Financial Institutions

- Consumer financing (if available)

If the pilot is successful EPA and DOE will consider adopting the HPwES partnership agreement for contractors and revising the HPwES partnership agreement for program sponsors. Minimum contractor participation requirements and quality assurance would be established in the partnership agreement for contractors. The revised partnership for program sponsors would focus on program promotion instead of program infrastructure development. Stakeholders would be given an opportunity to comment on the proposed changes before a final decision is made.

This document outlines the rationale and roadmap to pilot test a Contractor Partnership. It outlines steps necessary to recruit partners, monitor and verify work quality, market and sell a new service, and evaluate the results.

### **III. A Path to Accelerating Energy Efficient Home Improvements**

Under the proposed pilot a local program sponsor would not be required. Instead, contractors and home energy raters that meet national program eligibility requirements, will partner with ENERGY STAR to offer their customers Home Performance with ENERGY STAR – A package of energy efficient home improvements that can reduce total energy use by at least 20%. Local organizations (i.e. utilities, state and municipal agencies) will play an important role promoting HPwES through educational campaigns, marketing and financial incentives.

Under the proposed pilot, participating contractors and collaborating organizations, with assistance from DOE and EPA, will address many of the barriers that currently deter homeowners from investing in energy efficient home retrofits. For example,

- Contractors are trained to perform whole-house energy audits. To assist contractors, DOE will provide training and technician certification on a cost-shared basis. DOE will reimburse up to half of the cost of training and certification after 20 qualifying projects have been completed. Training reimbursement is being offered as an incentive to encourage contractors to participate in the pilot and to report jobs. DOE does not plan to continue offering training reimbursement after the pilot.

- EPA will initiate a consumer education campaign to increase awareness of the value of HPwES and direct homeowners to a web site listing participating contractors. This will help homeowners find contractors that are skilled at completing quality energy efficiency retrofit projects. The web site will be separate from the ENERGY STAR web site during the pilot.

If the pilot is successful content on the pilot web site will be merged with the ENERGY STAR web site. EPA will continue to partner with utilities, states and municipal governments to conduct consumer education campaigns to increase awareness of HPwES, however future tactics and markets are subject to change.

- Participating contractors market and advertise their services and HPwES to homeowners. The contractors educate customers about the link between comfort and energy efficiency. An ENERGY STAR marketing tool kit will be available to participating contractors to use.
- Contractors will complete test-out procedures (i.e. air leakage and combustion flue draft tests) to help ensure that improvements meet program health and safety standards.
- A third-party organization will verify each contractor's Quality Control procedures and review work performed by the contractors to monitor quality.

#### **IV. New Partnership To Improve American Homes**

To be eligible to participate in the pilot, contractors will be accredited by an independent third-party organization and participate in a quality assurance program that will verify that participating contractors:

- 1) are committed to performing services according to consensus-based building science standards and best practices;
- 2) are committed to quality management practices;
- 3) have obtained general liability, professional liability, and workers compensation insurance;
- 4) have registrations, and licenses required by state or local government to conduct business;
- 5) and have practices for internal quality management.

The independent third-party organization will review the quality of service delivered by accredited contractors annually through on-site verification and customer feedback. Electronic systems will be established to minimize the burden of reporting information for quality reviews.

Certified Home Energy Raters are eligible to participate in the pilot as independent consultants. They can complete a Home Performance Assessment and test-out inspections. If they choose to perform home improvements they will need to be accredited according to the same procedures adopted for contractors.

Contractors and consultants will be invited to participate in the pilot during workshops that explain the benefits of home performance contracting. Manufacturers and distributors of residential building products and equipment will be asked to help promote these workshops to their customers.

General home improvement contractors, specialized trade contractors, remodelers, and home energy raters are likely participants. Participants will agree to the following terms, outlined in the Home Performance with ENERGY STAR Partnership Agreement (See Appendix C).

- 1) Provide homeowners with a Home Performance Assessment (HPA) summary report that meets HPwES guidelines. The summary report includes findings from the HPA and fuel-neutral recommended improvements (i.e. scope of work) that will save at least 20% on total energy use. (A Home Energy Rating or audit procedures approved for use by DOE's Weatherization Assistance Program can be used to estimate 20% reduction in total energy use.)
- 2) All home improvements must meet applicable state or local building codes and consensus based building science standards.
- 3) Annually complete at least 20 HPAs **and** test-out inspections (requires that energy efficiency improvements were completed to homes) per HPwES guidelines during the 24-month pilot.
- 4) Report information about all home improvement projects completed to EPA and DOE through a designated third-party quality assurance provider for the purpose of quality assurance review.
- 5) Use the HPwES marketing graphic to promote a comprehensive, whole-house process for improving the energy efficiency of homes to prevent pollution, protect the environment, and save money on energy bills.
- 6) Follow the HPwES Marketing Graphic Guidelines (available at [www.energystar.gov/marks](http://www.energystar.gov/marks)) and ensure that authorized representatives, such as advertising agencies also follow them.

Contractors and Home Energy Raters that participate in the pilot (i.e. sign a partnership agreement) will be considered ENERGY STAR Partners. Participating contractors and consultants can receive a Summary of Energy Improvements Certificate (Appendix B) when projects meet program guidelines to reduce energy use by at least 20%. Contractors will fax a "test-out" form to DOE and EPA for review. Each project that meets program requirements will be credited to the contractor on the program web site. The total number of projects that qualify will be listed next to each contractor's name.

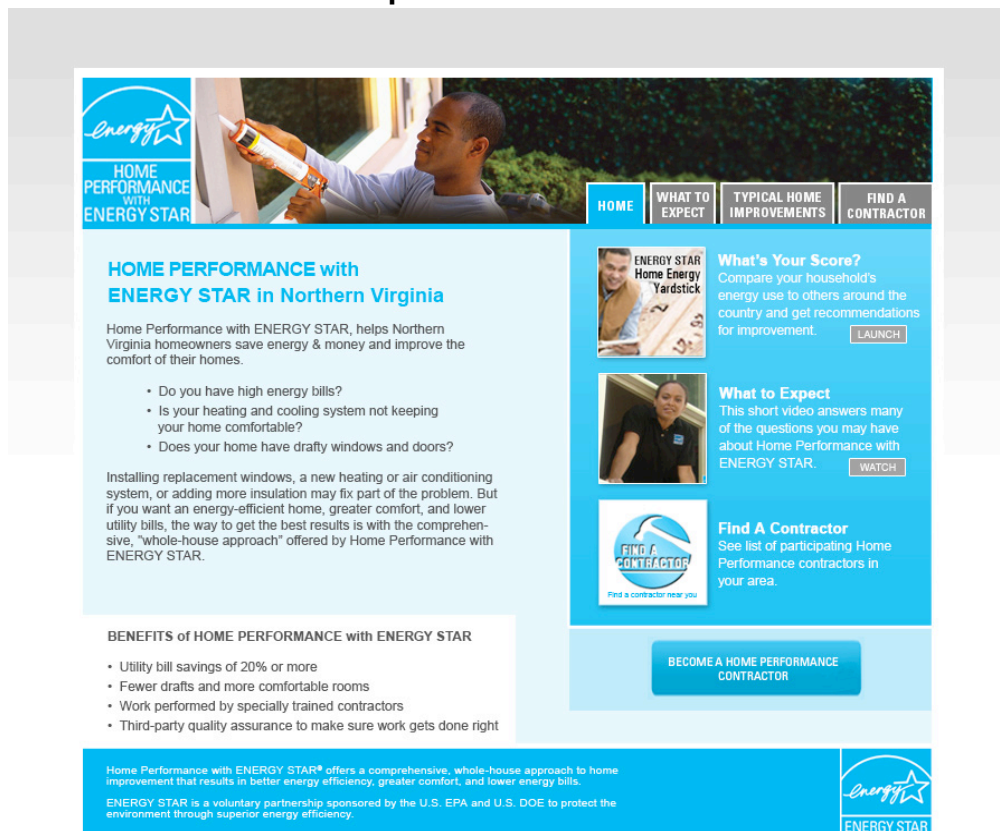
## Pilot Market

Northern Virginia has been selected as the pilot market for this new Contractor Partnership. It is not currently served by an existing program sponsor, over 50% of homes in the region were built before 1980, and the median income of homeowners is among the highest in the country. Unfortunately, utility rates are lower than average for the U.S., so raising consumer awareness will be an essential activity. DOE and EPA will work with utilities and local governments to raise consumer awareness and explore activities such as incentives and financing.

## Consumer Web Site

A consumer web site and tracking system will be developed to promote HPwES in the pilot market. The web site will be based on an ENERGY STAR template created for program sponsors. Consumer leads that come through the web site will be tracked for evaluation purposes.

### Example of Consumer Web Site



The web site will include information about the benefits of HPwES, what the homeowner should expect, how to find a contractor, the responsibilities of the contractor and homeowner, and how disputes will be resolved. Any homeowner (or contractor) complaints received through the web site or ENERGY STAR hot line will be addressed following the process outlined in Appendix D.

### Consumer Awareness Campaign

HPwES will be a new service for the Pilot market. Although consumer awareness of ENERGY STAR may be high, awareness of a comprehensive home energy audit and home performance contracting will be low. Therefore, a homeowner awareness campaign will be necessary to introduce HPwES to homeowners.

EPA, with support from a marketing consultant, will prepare an advertising plan for the pilot market. The campaign will consist of two phases. The first phase will run approximately 3 months after the launch of the Pilot. The timing for the second phase has not been set. The first step in developing the plan will be to review market demographics and local media trends.

The plan may include a mix of the following advertising media:

- Print (newspaper & magazine – local and national),
- Radio (NPR, talk and leading stations – based on homeowner concentration,
- Online (Paid Search, SEO, web banners and buttons), and
- Limited TV (News, weather sponsorships).

Advertisements will likely be based on existing design templates in the Online Marketing Toolkit or used in past campaigns. Participating contractors will be encouraged to use design templates in the Marketing Toolkit to create co-branded ads.

The plan developed for Northern Virginia is likely to be similar to a plan developed for the Maryland Home Performance with ENERGY STAR Program and running in Montgomery County April, May and June of 2008. Examples of the advertising media used in the Maryland Campaign are provided in Appendix H.

## Design Template Examples from Online Marketing



## Pilot Evaluation

Prior to launching the pilots, EPA will complete a baseline market assessment in each pilot market. This baseline assessment will document:

- The estimated number of contractors currently offering home performance contracting services,
- Utilities' incentives for energy efficient home improvements,
- Examples of consumer marketing for services similar to HPwES,
- Other pertinent information that will help to establish a baseline to compare results from the pilot.

A preliminary evaluation of the pilot will be completed 12 months after the Pilot launch, and a final evaluation after 24 months. These evaluations will attempt to answer the following questions about the pilot:

### Marketing

- Did consumer awareness increase during the pilot?
- What marketing tactics were most successful?

### Financing

- How many consumers used financing products available through the pilot?
- What types of financing were most popular with consumers?

### Energy Savings

- How much energy did the average consumer save as a result of HPwES?
- What were the most common improvements?

### Consumer Motivation/Satisfaction



- Why did consumers choose HPwES?
- Were consumers satisfied with the service they received?

#### Program Design and Process

- Did the reporting and quality assurance process work as designed?
- How could the design of the pilot be improved?

#### Contractor Participation

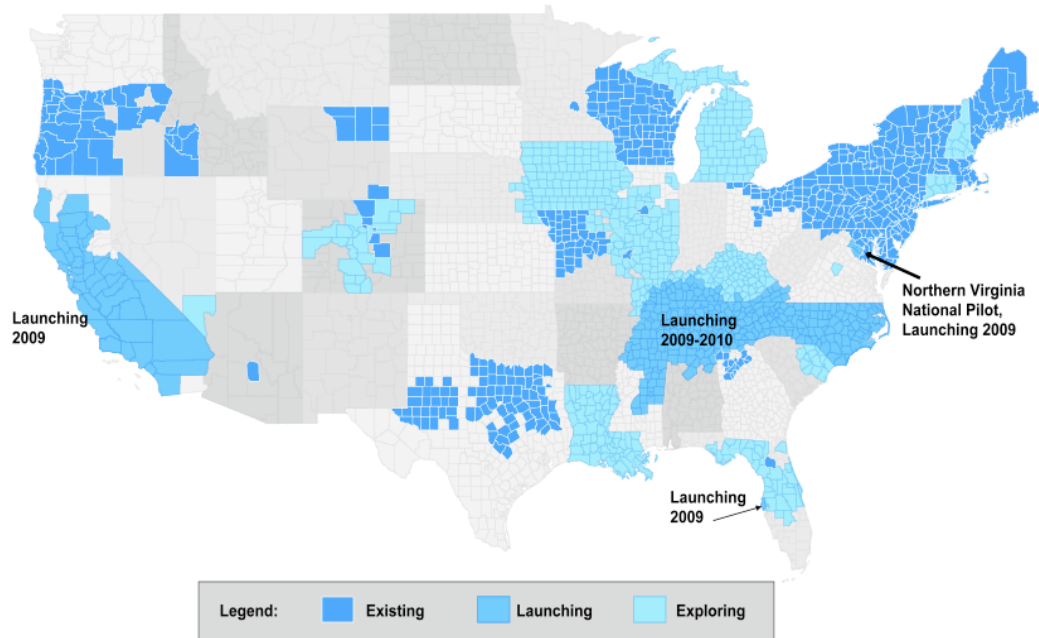
- Why did some contractors choose to not participate?
- Did the contractors that participated think the pilot was successful?
- What would contractors that participated in the pilot like to see changed?

#### Pilot Schedule

The pilot is planned to begin October 1, 2009. It will run for 2 years until September 30, 2011.

## Appendix A


Home Performance with ENERGY STAR Program Activity  
April 2009



## Appendix B

### Example Certificate

# Home Performance with ENERGY STAR® Summary of Energy Improvements Performed



**Home Address:**  
OWNER NAME  
Address  
City, State, Zip

**Work Performed by:**  
Company Name

**Work Verified by:**  
Company Name

**Work Completed on:**  
Month 00, Year

\_\_\_\_\_  
Program Representative (Signature Optional)

**Home Performance Improvements:**  
(Sample List)

- Air Sealing Performed
- Attic Insulation Increased to R-30
- Wall Insulation Added
- Ducts Sealed
- Seer 14 Air Conditioning Installed
- 90% AFUE Furnace Installed
- High-Performance Windows Installed
- ENERGY STAR Qualified Dishwasher and Refrigerator Installed
- 5 ENERGY STAR Qualified CFLs Installed


**Environmental Impact of Improvements:**  
(Optional)

- CO<sub>2</sub> Emissions reduced by: 1360 lbs

**Home Performance Results Achieved:**

Existing Homes E-Scale or other performance metric could go here

Home Performance with ENERGY STAR® offers a comprehensive, whole-house approach to home improvement that results in better energy efficiency, greater comfort, and lower energy bills.  
ENERGY STAR is a voluntary partnership sponsored by the U.S. EPA and U.S. DOE to protect the environment through superior energy efficiency.



HOME PERFORMANCE WITH  
**ENERGY STAR**

## Appendix C

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# Home Performance with ENERGY STAR® Contractor Partnership Agreement

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**Return this form to ENERGY STAR:**

HomePerformance@EnergyStar.gov  
US EPA (Mail Code 6202J)  
1200 Pennsylvania Ave, NW  
Washington, DC 20460  
FAX: 202-343-2200

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### ENERGY STAR Background Information

ENERGY STAR helps consumers, businesses, and public organizations protect the environment through superior energy efficiency. Home Performance with ENERGY STAR promotes a process of improving the energy efficiency of homes. The process is facilitated by a home performance professional that completes a whole-house energy audit, recommends improvements that will save at least 20% on total energy use, proposes a scope of work to complete the improvements and completes a test-out inspection after improvements have been installed. Energy savings are typically achieved through a combination of envelope upgrades, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, upgraded water-heating equipment, high performance windows, and efficient lighting and appliances. Installed measures must be supervised by a home performance professional that is knowledgeable of applicable building codes and consensus-based building science standards. All participating contractors must be enrolled in a quality assurance program that meets Home Performance with ENERGY STAR criteria.

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Organization Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ Web Site: \_\_\_\_\_

Major Metro Area Served: Northern Virginia (City of Alexandria, Arlington County, Fairfax County, Loudon County and Prince William County)

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To be eligible for partnership an organizations must be:

**A residential home improvement contractor accredited by an independent third-party approved by EPA and DOE; or  
A Certified Home Energy Rater**

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Authorized Company Representative (printed name): \_\_\_\_\_

Title: \_\_\_\_\_ E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**To be completed by ENERGY STAR Representative:**

Kathleen Hogan, U.S. EPA

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

David E. Rodgers, U.S. DOE

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**General Commitments for Home Performance with ENERGY STAR Contractor Partners**

- 1. Provide homeowners with a Home Performance Assessment (HPA) summary report that meets Home Performance with ENERGY STAR guidelines. The summary report includes findings from the HPA and fuel-neutral recommended improvements (i.e. scope of work) that will save at least 20% on total energy use. (A Home Energy Rating or audit procedures approved for use by DOE's Weatherization Assistance Program can be used to estimate 20% reduction in total energy use.)**
- 2. All home improvements must meet applicable state or local building codes and consensus-based building science standards.**
- 3. Complete at least 20 HPAs and test-out inspections (requires that energy efficiency improvements were completed to homes) annually that meet Home Performance with ENERGY STAR guidelines during the pilot.**
- 4. Report information about all home improvement projects completed to EPA through a designated third-party quality assurance provider for the purpose of quality assurance review.**
- 5. Use the Home Performance with ENERGY STAR marketing graphic to promote a comprehensive, whole-house process for improving the energy efficiency of homes to prevent pollution, protect the environment, and save money on energy bills.**
- 6. Follow the Home Performance with ENERGY STAR Marketing Graphic Guidelines (available at [www.energystar.gov/marks](http://www.energystar.gov/marks)) and ensure that authorized representatives, such as advertising agencies also follow them.**

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**ENERGY STAR Commitments to Partners**

1. Increase awareness of Home Performance with ENERGY STAR by distributing key messages on the benefits of a whole-house approach to improving energy efficiency.
2. Provide current Home Performance with ENERGY STAR news, information, and reference documents (via the ENERGY STAR Web site, e-mail or other means).
3. Respond swiftly to requests for information or clarification on Home Performance with ENERGY STAR policies.

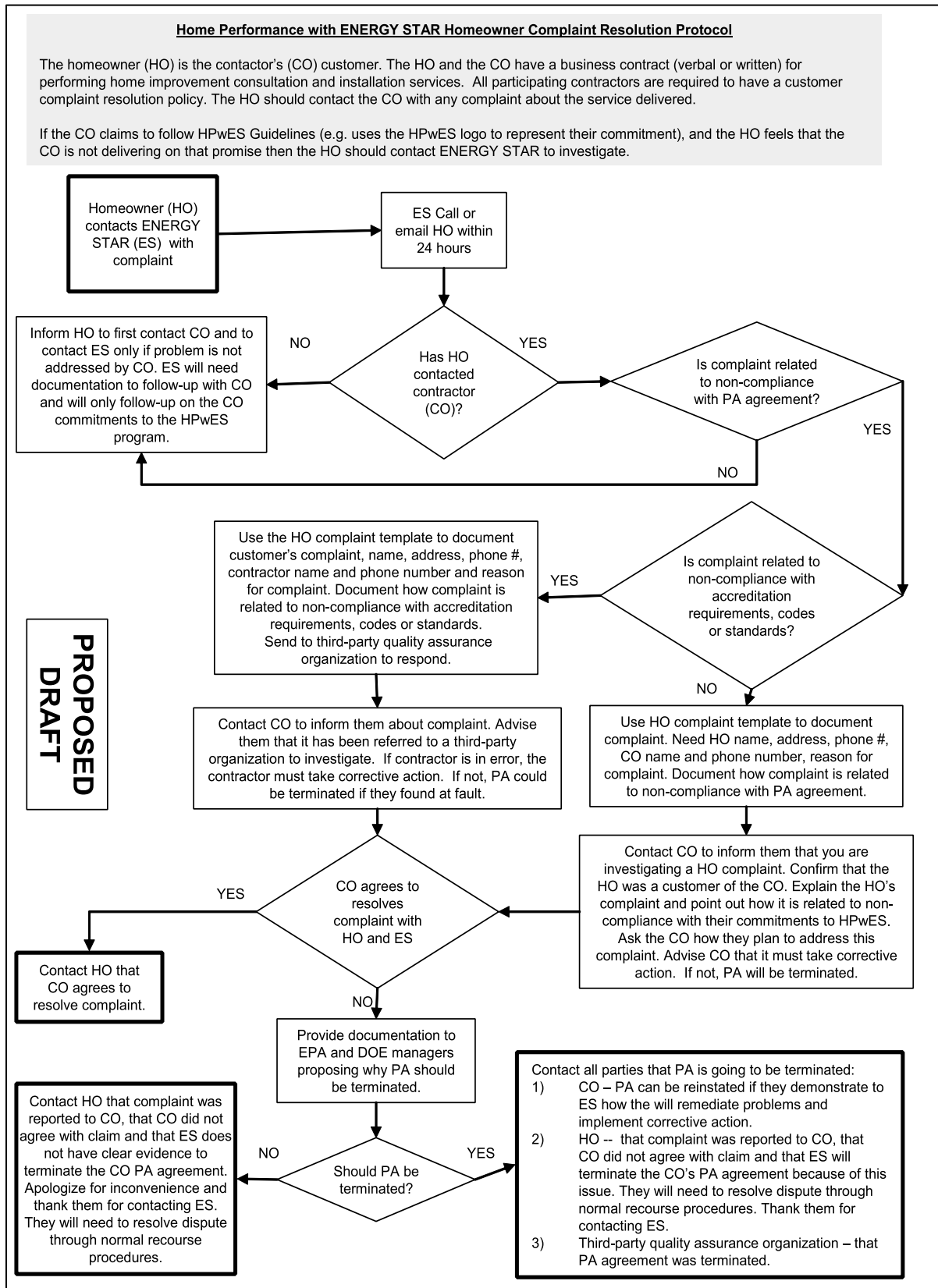
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**General Terms and Disclaimers**

1. The partner will not construe, claim or imply that its participation in Home Performance with ENERGY STAR constitutes federal government approval, acceptance, or endorsement of anything other than the partner's commitment to Home Performance with ENERGY STAR. Partnership does not constitute federal government endorsement of the partner or its services.
  2. The partner understands that the activities it undertakes in connection with Home Performance with ENERGY STAR are voluntary and not intended to provide services to the federal government. As such, the partner will not submit a claim for compensation to any federal agency.
  3. The partner and ENERGY STAR will assume good faith as a general principle for resolving conflict and will seek to resolve all matters informally, so as to preserve maximum public confidence in ENERGY STAR.
  4. This agreement is voluntary and can be terminated by either party at any time or any reason, with no penalty.
  5. Failure to comply with any of the terms of this partnership agreement can result in its termination and cessation of access to the benefits of Home Performance with ENERGY STAR, including use of the marketing graphic.
  6. ENERGY STAR will actively pursue resolution of noncompliance related to the use of the Home Performance with ENERGY STAR marketing graphic.
  7. **For pilot testing purposes this agreement will terminate on September 30, 2011 and is limited to the metro area served that is designated in this agreement.**
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## Appendix D

### Customer Complaint Resolution Protocol



## Appendix E

### Example Marketing Plan for Maryland Home Performance with ENERGY STAR Program

- **Out of Home: Montgomery County Transit Posters**
  - 20 Two-sheet posters in 10 Montgomery County transit stations
    - Shady Grove Circ. 13,191
    - Bethesda Circ. 10,174
    - Rockville Circ. 4,193
    - Silver Spring Circ. 13,632
    - Twinbrook Circ. 4,362
    - Wheaton Circ. 4,737
    - White Flint Circ. 3,591
    - Grosvenor Circ. 5,046
    - Medical Center Circ. 4,771
    - Friendship Heights Circ. 9,294
    - Glenmont Circ. 5,601
    - Forest Glen Circ. 2,059
- **Local paid search with Google**
  - Timing: 2.5 months (Mid-April through June)
  - Information from previous HPwES campaigns will inform the schedule
    - Will establish a firm click-thru number after first month but based on conversations with Google we anticipate:
      - 5,139 impressions & 3,529 clicks/traffic
      - 514 conversations to the “Find a Contractor” page
- **Montgomery Gazette**
  - One 4C Full Page Insertion in My Home
  - Targeted distribution into Damascus, Gaithersburg, Germantown, Olney, Potomac, Rockville, Bethesda and Silver Spring
  - Banners on Gazette.net
  - Targeted to Montgomery County
  - Up to 250,000 impressions per month
- **NPR: Maryland Public Radio** (adult 25-54):
- 24: 10-second mentions per week
  - Scripts
  - *By Home Performance with ENERGY STAR; an innovative, whole-house approach to improving energy efficiency at home. Learn more at [www.mdhomeperformance.org](http://www.mdhomeperformance.org).*
  - *By Home Performance with ENERGY STAR; Helping Maryland homeowners lower utility bills and improve energy efficiency at home. [www.mdhomeperformance.org](http://www.mdhomeperformance.org).*
  - *By Home Performance with ENERGY STAR; Improve energy efficiency and make your home more comfortable. Learn more at [www.mdhomeperformance.org](http://www.mdhomeperformance.org).*
- 40: 15-second underwriting mentions
  - Script
  - *Maryland Public Radio supporters include Maryland Home Performance with ENERGY STAR, helping Maryland homeowners improve energy efficiency and protect the environment. Information available at [www.mdhomeperformance.org](http://www.mdhomeperformance.org).*
- Online clickable tile ad on wypr.org, rotating on all pages  
Timing: 8-week consecutive schedule focused on drive time.